

CLAIMS

1. A device for milking an animal, in particular a cow (2), characterized in that the device is provided with a stress measuring device for determining the degree of stress of the animal and for supplying stress measurement data to a storage device for storing stress measurement data, the device being adapted to measure and store stress measurement data before and during milking.

2. A device as claimed in claim 1, characterized in that the device is also suitable for measuring and storing stress measurement data after milking.

3. A device as claimed in claim 1 or 2, characterized in that the device is provided with means for determining milk related data, and in that the storage device is suitable for storing the stress measurement data together with the milk related data.

4. A device as claimed in claim 3, characterized in that the means for determining milk related data are suitable for determining the milk flow per udder quarter of an animal during milking.

5. A device as claimed in any one of the preceding claims, characterized in that the device is provided with an animal identification system and with a central unit (20) provided with a computer having a memory, said memory being adapted to contain per animal data in relation to stress.

6. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises an infrared meter (6) for measuring an infrared image of the animal.

7. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a camera, in particular a video camera (7), for determining the position of the ears and/or the head and/or the tail of the animal.

8. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a hygrometer (8) for determining the humidity of the fur respectively the nose of the animal.

9. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a movement behaviour meter, such as a video camera (9), a step counter (10), a weighing floor or a cow follower, for determining the movement behaviour, in particular the movement activity, of the animal.

10. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises an eye meter (11), such as a video camera or a scanner, for determining the eye characteristics of the animal.

11. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a smell or odour meter (12) for determining the breath or body odour of the animal.

12. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a muscular tension measuring device (13), such as a muscle contraction meter or video camera, for determining the muscular tension of the animal.

13. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a video camera (14) for determining whether the animal has its tongue outside its mouth.

14. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device comprises a blood analyser (15) for determining the concentration of blood components, such as oxygen, hormones blood cells, of the animal.

15. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device

comprises an excrement analysing device (16) for determining the characteristics of the excrement of the animal.

16. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device
5 comprises a heartbeat meter (17) for determining the heartbeat of the animal.

17. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device
10 comprises a thermometer (18) for determining the temperature of the animal.

18. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device
comprises a muscle vibration meter (19) for determining the muscle vibrations of the animal.

19. A device as claimed in any one of the preceding claims, characterized in that the device is disposed in a milking parlour (1) and/or a foremilk parlour and/or in a cleaning box for cleaning certain parts, such as the teats of the animal, and/or in a post-treatment box.

20. A device as claimed in claim 19, characterized in that a milking robot (3) is disposed in the milking parlour (1).

21. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device is
25 provided with a buffer memory for containing a number of measurement data.

22. A device as claimed in any one of the preceding claims, characterized in that the stress measuring device is provided with a transmitter for transmitting data.

23. A device as claimed in claim 22, characterized in that the stress measuring device is provided with a receiver for receiving a transmission order.

24. A device as claimed in any one of the preceding claims, characterized in that the device is provided with a
35 central unit (20) comprising a computer having a memory for

processing measurement data measured by the stress measuring device.

25. A device as claimed in claim 24, characterized in that the central unit (20) is provided with a reading device
5 for reading the stress measuring device.

26. A device as claimed in claim 24 or 25, characterized in that the central unit (20) comprises a correspondence table, said correspondence table containing per animal stress related data, such as limit values,
10 historical data and tolerance ranges.

27. A device as claimed in claim 26, characterized in that the central unit (20) comprises a comparing device for comparing the measurement data with the data in the correspondence table and/or for comparing the stress
15 measurement data obtained before, during, and preferably also after milking during a milking run.

28. A device as claimed in claim 27, characterized in that the computer is loaded with a program for giving, on the basis of the comparison of the comparing device, an
20 indication about the amount of stress of the animal.

29. A device as claimed in claim 28, characterized in that the computer program supplies a prognosis of the stress behaviour.

30. A device as claimed in claim 29, characterized in that the device is provided with various stress measuring
25 devices, the computer containing an algorithm for attributing a weighing factor to a particular stress measurement data.

31. A device as claimed in any one of the preceding claims 24 through 30, characterized in that the central unit
30 is provided with a signal issuing device for issuing a signal after receipt and processing of the stress measurement data.

32. A device as claimed in claim 31, characterized in that the signal on a display screen (21), printer or the like produces an image giving information about the stress
35 behaviour of the animal.

33. A device as claimed in any one of the preceding claims, characterized in that the device is provided with an animal identification system (22).

34. A device as claimed in claim 33, characterized in that the animal identification system is capable of being detected by a GPS-system.

35. A device as claimed in any one of the preceding claims, characterized in that the device comprises a stress measuring device, said stress measuring device supplying a signal to an alarm device on the basis of the stress measured.

36. A device for monitoring an animal, in particular a cow (2), said device comprising a stress measuring device for determining stress of the animal, characterized in that the stress measuring device comprises a device selected from the group consisting of an infrared meter (6) for measuring an infrared image of the animal, a hygrometer (8) for determining the humidity of the fur respectively the nose of the animal, an iris scanner (11) for determining the eye characteristics of the animal, a smell or odour meter (12) for determining the breath or body odour of the animal, a muscular tension measuring device (13) for determining the muscular tension of the animal, an excrement analysing device (16) for determining the characteristics of the excrement of the animal, a muscle vibration meter (19) for determining the muscle vibrations of the animal.

37. A device as claimed in claim 36, characterized in that the central unit (20) comprises a correspondence table, said correspondence table containing per animal stress related data, such as limit values, historical data and tolerance ranges.

38. A device as claimed in claim 37, characterized in that the central unit (20) comprises a comparing device for comparing the measurement data with the data in the correspondence table.

39. A device as claimed in claim 38, characterized in that the computer is loaded with a program for giving, on the basis of the comparison of the comparing device, an indication about the amount of stress of the animal.

5 40. A device as claimed in claim 39, characterized in that the computer program supplies a prognosis of the stress behaviour.

41. A device as claimed in claim 40, characterized in that said device is provided with various stress measuring
10 devices, the computer containing an algorithm for attributing a weighing factor to a particular stress measurement data.

42. A device as claimed in any one of claims 36 through 41, characterized in that the device is provided with an animal identification system (22).

15 43. A device as claimed in claim 42, characterized in that the animal identification system is capable of being detected by a GPS-system.

44. A method of milking an animal, in particular a cow, characterized in that said method comprises the step of
20 determining stress of the animal before and during milking.

45. A method as claimed in claim 44, characterized in that said method comprises the step of determining the stress of the animal after milking.

46. A method as claimed in claim 44 or 45,
25 characterized in that said method comprises the step of storing the determined stress measurement data.

47. A method as claimed in claim 44, 45 or 46, characterized in that said method comprises the step of determining milk related data, and in that the storage device
30 is suitable for storing the stress measurement data together with the milk related data.

48. A method as claimed in any one of claims 44 through 47, characterized in that said method comprises the step of an automatic animal related treatment.

49. A method as claimed in claim 48, characterized in that the method comprises the step of performing an automatic animal related treatment on the basis of the determined stress measurement data of an animal.

5 50. A method as claimed in any one of the preceding claims 44 through 49, characterized in that the stress is determined on the basis of an infrared image of the animal.